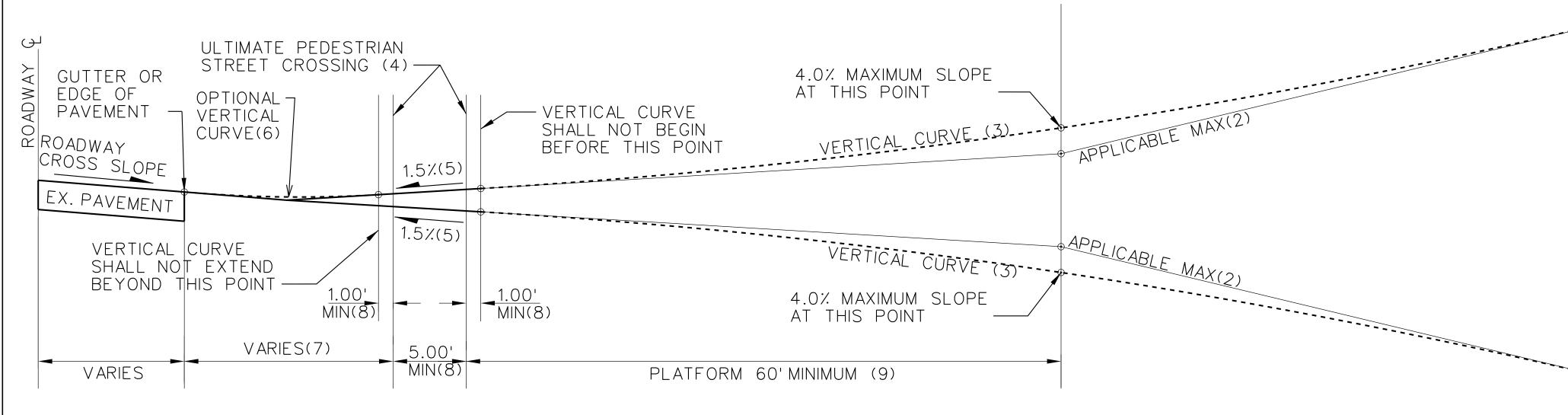


## STOP OR YIELD CONTROLLED APPROACH GRADE BREAK AT EDGE OF INTERSECTING ROADWAY



STOP OR YIELD CONTROLLED APPROACH GRADE BREAK PULLED AWAY FROM EDGE OF INTERSECTING ROADWAY

#### NOTES:

- SLOPE SHALL BE EQUAL TO SLOPE OF PEDESTRIAN STREET
- (2) MAXIMUM GRADE DEPENDENT UPON STREET CLASSIFICATION, REFER TO DESIGN CRITERIA MANUAL FOR SPECIFIC REQUIREMENTS.
- (3) REFER TO AASHTO 'A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS' (2018).
- (4) PEDESTRIAN STREET CROSSINGS SHALL BE PROVIDED AT ALL INTERSECTIONS. WHERE SIDEWALKS DO NOT CURRENTLY EXIST, THE PEDESTRIAN STREET CROSSING SHALL BE LOCATED PER APPLICABLE ULTIMATE ROADWAY TYPICAL SECTION AS

SLOPE REQUIREMENTS FOR DESIGN SPEED OF 30MPH OR LESS COMPOUND GRADE BREAKS FOR ADA ACCOMIDATION SHALL NOT BE PERMITTED FOR DESIGN SPEEDS GREATER THAN 30MPH.

- A MAXIMUM OF 2.0%, ON APPROACH MOVEMENTS UNDER STOP OR YIELD CONTROL. RECOMMENDED SLOPE 1.5%. SLOPE SHALL BE MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPE RESTRICTION APPLIES TO ENTIRE APPROACH.
- 4.0% MAXIMUM ALGEBRAIC DIFFERENCE GRADE BREAK. THIS CRITERIA APPLIES ACROSS THE ENTIRE APPROACH.
- (7) WHERE SIDEWALK IS LOCATED ON THE BACK OF CURB, THE PEDESTRIAN ACCESS ROUTE THROUGH THE INTERSECTION SHALL BE A MINIMUM OF 6' WIDE MEASURED FROM THE PROLONGATION OF THE BACK OF CURB ON EITHER SIDE OF THE INTERSECTION.
- DIMENSION SHALL BE MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL THROUGH THE PEDESTRIAN STREET CROSSING.
- (9) LARGE LOT SUBDIVISIONS MAY REDUCE PLATFORM LENGTH TO 30' FROM THE PEDESTRIAN CROSSING.

### **GENERAL NOTES:**

DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.

EACH APPROACH AT AN INTERSECTION SHALL BE DESIGNED APPROPRIATELY FOR THE CLASSIFICATION AND USAGE OF SAID APPROACH.

YIELDING RIGHT TURN MOVEMENTS SHALL BE DESIGNED FOR STOP OR YIELD CONTROL

EXCEPTION: A YIELDING RIGHT TURN MOVEMENT WHERE TRAFFIC IS LIKELY TO PROCEED WITHOUT STOPPING OR YIELDING MAY BE DESIGNED FOR FREEFLOW VEHICULAR MOVEMENTS. TYPICAL APPLICATION WOULD BE AT A SIGNALIZED INTERSECTION.

ISSUE DATE 03/09/2020 REVISIONS

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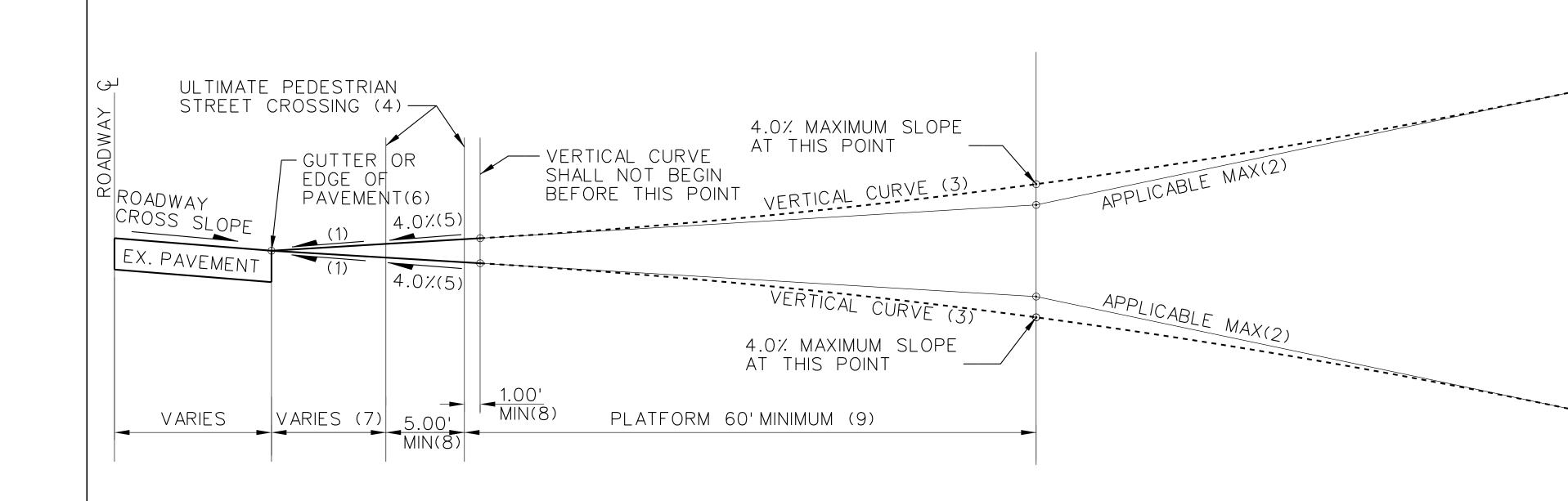


DESIGN CRITERIA MANUAL INTERSECTION

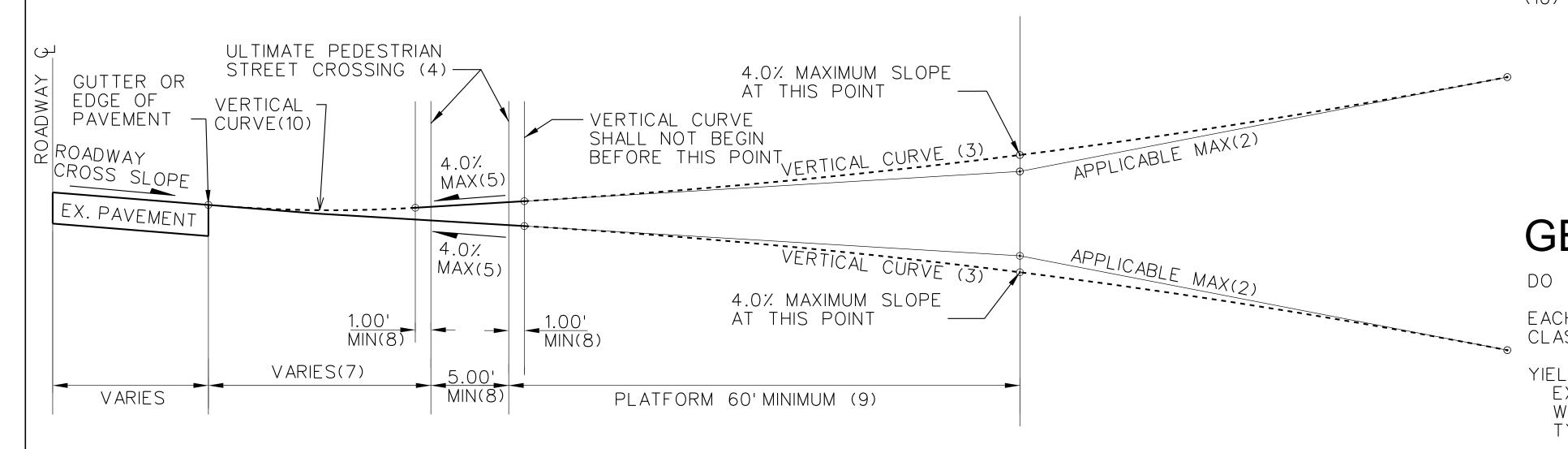
**APPROACH** REQUIREMENTS STOP OR YIELD CONTROL PROFILE

**EFFECTIVE** 05/01/2020

SHEET 1 OF 2 DRAWING 5.1



# FREEFLOW AND SIGNAL CONTROLLED APPROACH GRADE BREAK TRANSITION (DESIGN SPEED 30MPH OR LESS)



FREEFLOW AND SIGNAL CONTROLLED APPROACH SMOOTH TRANSITION (ACCEPTABLE FOR ALL DESIGN SPEEDS)

#### NOTES:

- (1) SLOPE SHALL BE EQUAL TO SLOPE OF PEDESTRIAN STREET CROSSING.
- (2) MAXIMUM GRADE DEPENDENT UPON STREET CLASSIFICATION, REFER TO DESIGN CRITERIA MANUAL FOR SPECIFIC REQUIREMENTS.
- (3) REFER TO AASHTO 'A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS' (2018).
- (4) PEDESTRIAN STREET CROSSINGS SHALL BE PROVIDED AT ALL INTERSECTIONS. WHERE SIDEWALKS DO NOT CURRENTLY EXIST, THE PEDESTRIAN STREET CROSSING SHALL BE LOCATED PER APPLICABLE ULTIMATE ROADWAY TYPICAL SECTION AS DETERMINED BY THE DEPARTMENT OF TRANSPORTATION.

GRADE BREAKS UP TO 2% MAY BE USED AT THE LIMITS OF THE PEDESTRIAN STREET CROSSING TO ACCOMIDATE ADA CROSS SLOPE REQUIREMENTS FOR DESIGN SPEED OF 30MPH OR LESS. COMPOUND GRADE BREAKS FOR ADA ACCOMIDATION SHALL NOT BE PERMITTED FOR DESIGN SPEEDS GREATER THAN 30MPH.

- (5) SLOPE SHALL BE SUFFICIENT TO PROMOTE POSITIVE DRAINAGE, UP TO A MAXIMUM OF 4.0%, SLOPE UP TO 5.0% MAY BE PERMITTED IN SPECIAL CIRCUMSTANCES AND ONLY WITH DEPARTMENTAL APPROVAL. SLOPE SHALL BE MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPE RESTRICTION APPLIES TO ENTIRE APPROACH. COMPOUND GRADE BREAKS SHALL NOT BE PERMITTED.
- (6) 4.0% MAXIMUM ALGEBRAIC DIFFERENCE GRADE BREAK. THIS CRITERIA APPLIES ACROSS THE ENTIRE APPROACH.
- (7) WHERE SIDEWALK IS LOCATED ON THE BACK OF CURB, THE PEDESTRIAN ACCESS ROUTE THROUGH THE INTERSECTION SHALL BE A MINIMUM OF 6' WIDE MEASURED FROM THE PROLONGATION OF THE BACK OF CURB ON EITHER SIDE OF THE INTERSECTION.
- (8) DIMENSION SHALL BE MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL THROUGH THE PEDESTRIAN STREET CROSSING.
- (9) LARGE LOT SUBDIVISIONS MAY REDUCE PLATFORM LENGTH TO 40' FROM THE GUTTER LINE OR EDGE OF PAVEMENT.
- (10) MINIMUM K AND STOPPING SIGHT DISTANCE REQUIREMENTS SET BY CURRENT AASHTO STANDARDS. ALL APPROACH PAVEMENT SHALL BE WARPED TO PROVIDE A SMOOTH TRANSITION AT THE INTERSECTION WITHOUT GRADE BREAKS.

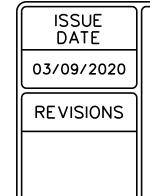
EXCEPTION: SEE NOTE (4)

### **GENERAL NOTES:**

DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.

EACH APPROACH AT AN INTERSECTION SHALL BE DESIGNED APPROPRIATELY FOR THE CLASSIFICATION AND USAGE OF SAID APPROACH.

YIELDING RIGHT TURN MOVEMENTS SHALL BE DESIGNED FOR STOP OR YIELD CONTROL. EXCEPTION: A YIELDING RIGHT TURN MOVEMENT WHERE TRAFFIC IS LIKELY TO PROCEED WITHOUT STOPPING OR YIELDING MAY BE DESIGNED FOR FREEFLOW VEHICULAR MOVEMENTS. TYPICAL APPLICATION WOULD BE AT A SIGNALIZED INTERSECTION.



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DESIGN CRITERIA MANUAL
INTERSECTION
APPROACH
REQUIREMENTS
FREEFLOW - SIGNAL CONTROL PROFILE

EFFECTIVE 05/01/2020

SHEET 2 OF 2 DRAWING 5.1